Chapter 1

Introduction

TODO Two references per paragraph
TODO Base paragraph by the papers

Internet of Software Monoculture

Software Diversification as a solution

TODO Moved from Chapter 2 The low presence of defenses implementations for WebAssembly motivates our work on Software Diversification as a preemptive technique that can help against known and yet unknown vulnerabilities.

Artificial Software Diversification

Fine-grained Diversification

1.1 Thesis Statement

1.2 Research questions

1. RQ1. To what extent can we artifically generate program variants for WebAssembly ? **TODO** Motivation

2. RQ2. To what extent are the generated variants dynamically different? **TODO** Motivation

3. RQ3. To what extent do the artificial variants exhibit different execution times on Edge-Cloud platforms? **TODO** Motivation

1.3 Contributions

The contributions of this thesis are:

(C_1) Methodological contribution: **TODO**

(C_2) Experimental contribution: **TODO**

(C_3) Theoretical contribution: **TODO**

(C_4) Technical contribution: **TODO** **TODO** Point to chapter 3

1.4 Publications

(P_1) Bytecode analysis for V8 and DTW: **TODO**

(P_2) Superoptimization: **TODO**

(P_3) CROW: **TODO**

(P_4) MEWE: **TODO**

Origin of contributions ?

Other publications and talks

1. wasm-mutate: **TODO**

Thesis layout